

Implementation of
EN ISO/IEC 7811-1:1996

Identification cards — Recording technique —

Part 1: Embossing

The European Standard EN ISO/IEC 7811-1:1996 has the status of a British Standard

ICS 35.240.15

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee IST/17, Identification cards and related devices, upon which the following bodies were represented:

- APACS (Barclaycard)
- APACS (Co-operative Bank)
- APACS (Lloyds Bank)
- APACS (Midland Bank)
- APACS (Nat West Bank)
- Association for Payment Clearing Services (APACS)
- BT Laboratories
- Cellnet
- Consumer Policy Committee of BSI
- Electricity Association
- GPT Card Technology
- HMSO
- Mondex International
- Motorola Ltd.
- Rochford Thompson Equipment
- Shell UK
- Thorn Transit Systems International
- Vodafone Ltd.
- Westinghouse Cubic Ltd.

This British Standard, having been prepared under the direction of the DISC Board, was published under the authority of the Standards Board and comes into effect on 15 December 1996

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National foreword

This Part of BS EN ISO/IEC 7811-1 is the English language version of EN ISO/IEC 7811-1:1996 and implements it as the UK national standard. It supersedes BS 7106-1:1989 which is withdrawn.

This Part of BS EN ISO/IEC 7811-1 is published under the direction of the DISC Board whose Technical Committee IST/17 has responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, page 2, the ISO/IEC title page, pages ii to iv, pages 1 to 24, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Descriptors: Data processing, data storage devices, banking documents, financial documents, identification cards, recording, representation of characters, embossing specifications.

English version

Identification cards — Recording technique — Part 1: Embossing

(ISO/IEC 7811-1:1995)

Cartes d'identification — Technique
d'enregistrement — Partie 1: Estampage
(ISO/IEC 7811-1:1995)

Identifikationskarten — Aufzeichnungstechnik
— Teil 1: Prägen von Schriftzeichen
(ISO/IEC 7811-1:1995)

This European Standard was approved by CEN on 1996-05-22. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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 **Documents**
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Foreword

The text of the International Standard from Technical Committee ISO/IEC/JTC 1, Information technology, of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) has been taken over as a European Standard by the Technical Board of CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 1997, and conflicting national standards shall be withdrawn at the latest by January 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

NOTE Normative references to International Standards are listed in annex ZA (normative)

INTERNATIONAL
STANDARD

**ISO/IEC
7811-1**

Second edition
1995-08-15

**Identification cards — Recording technique —
Part 1:
Embossing**

*Cartes d'identification — Technique d'enregistrement —
Partie 1: Estampage*



Reference number
ISO/IEC 7811-1:1995(E)

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft international Standards adopted by the joint technical committee are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 7811-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Identification cards and related devices*.

This second edition cancels and replaces the first edition (ISO 7811-1:1985), of which it constitutes a technical revision.

ISO/IEC 7811 consists of the following parts, under the general title *Identification cards — Recording technique*:

- *Part 1: Embossing*;
- *Part 2: Magnetic stripe*;
- *Part 3: Location of embossed characters on ID-1 cards*;
- *Part 4: Location of read-only magnetic tracks — Tracks 1 and 2*;
- *Part 5: Location of read-write magnetic tracks — Track 2*.

Annexes A to C form an integral part of this part of ISO/IEC 7811.

Introduction

ISO/IEC 7811 is one of a series of standards describing the parameters for identification cards as defined in clause 4 and the use of such cards for international interchange.

1 Scope

This part of ISO/IEC 7811 specifies requirements for embossed characters on identification cards. The embossed characters are intended for transfer of data either by use of imprinters or by visual or machine reading.

ISO/IEC 10373, specifies the test procedures used to check cards against the parameters specified in this part of ISO/IEC 7811.

This part of ISO/IEC 7811 specifies the requirements for cards used for identification. It takes into consideration both human and machine aspects and states minimum requirements.

NOTE Numeric values in the SI and/or Imperial measurement system in this part of ISO/IEC 7811 may have been rounded off and therefore are consistent with, but not exactly equal to, each other. Either system may be used, but the two should not be intermixed or reconverted. The original design was made using the Imperial measurement system.

2 Conformance

An identification card is in conformance with this part of ISO/IEC 7811 if it meets all mandatory requirements specified herein.

A prerequisite for conformance with this part of ISO/IEC 7811 is conformance with ISO/IEC 7810.

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 7811. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this part of ISO/IEC 7811 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1073-1:1976, *Alphanumeric character sets for optical recognition — Part 1: Character set OCR-A — Shapes and dimensions of the printed image.*

ISO 1073-2:1976, *Alphanumeric character sets for optical recognition — Part 2: Character set OCR-B — Shapes and dimensions of the printed image.*

ISO 1831:1980, *Printing specifications for optical character recognition.*

ISO/IEC 7810:1995, *Identification cards — Physical characteristics.*

ISO/IEC 7811-3:1995, *Identification cards — Recording technique — Part 3: Location of embossed characters on ID-1 cards.*

ISO/IEC 10373:1993, *Identification cards — Test methods.*

4 Definitions

For the purposes of this part of ISO IEC 7811, the definition of “identification card” given in ISO/IEC 7810 and the following definitions apply.

4.1

embossing

to raise characters in relief from the front surface of a card

4.2

unused card

card which has been embossed with all the characters required for its intended purpose but has not been issued

4.3

returned card

embossed card after it has been issued to the card holder and returned for the purpose of testing

5 Visually and machine readable characters

5.1 Character set and type font

The numeric characters of one of the following type fonts shall be used for embossed characters intended for visual and/or machine reading, either directly from the card or from card imprints (see annex A):

- ISO 1073-1, OCR-A, Sizes I and IV;
- ISO 1073-2, OCR-B, Sizes I and IV;
- Type font 7B as described in annexes B and C.

NOTE To ensure system compatibility in the choice of font, the attention of intending users is drawn to the necessity of agreement with their potential interchange partners.

Print specifications are given in ISO 1831.

5.2 Character spacing

The character spacing shall be:

3,63 mm $\pm$ 0,15 mm (0,143 in $\pm$ 0,006 in)

5.3 Character height

Maximum height at the printing surface of the embossed characters, encompassing centreline skew and character misalignment shall be:

4,32 mm (0,170 in)